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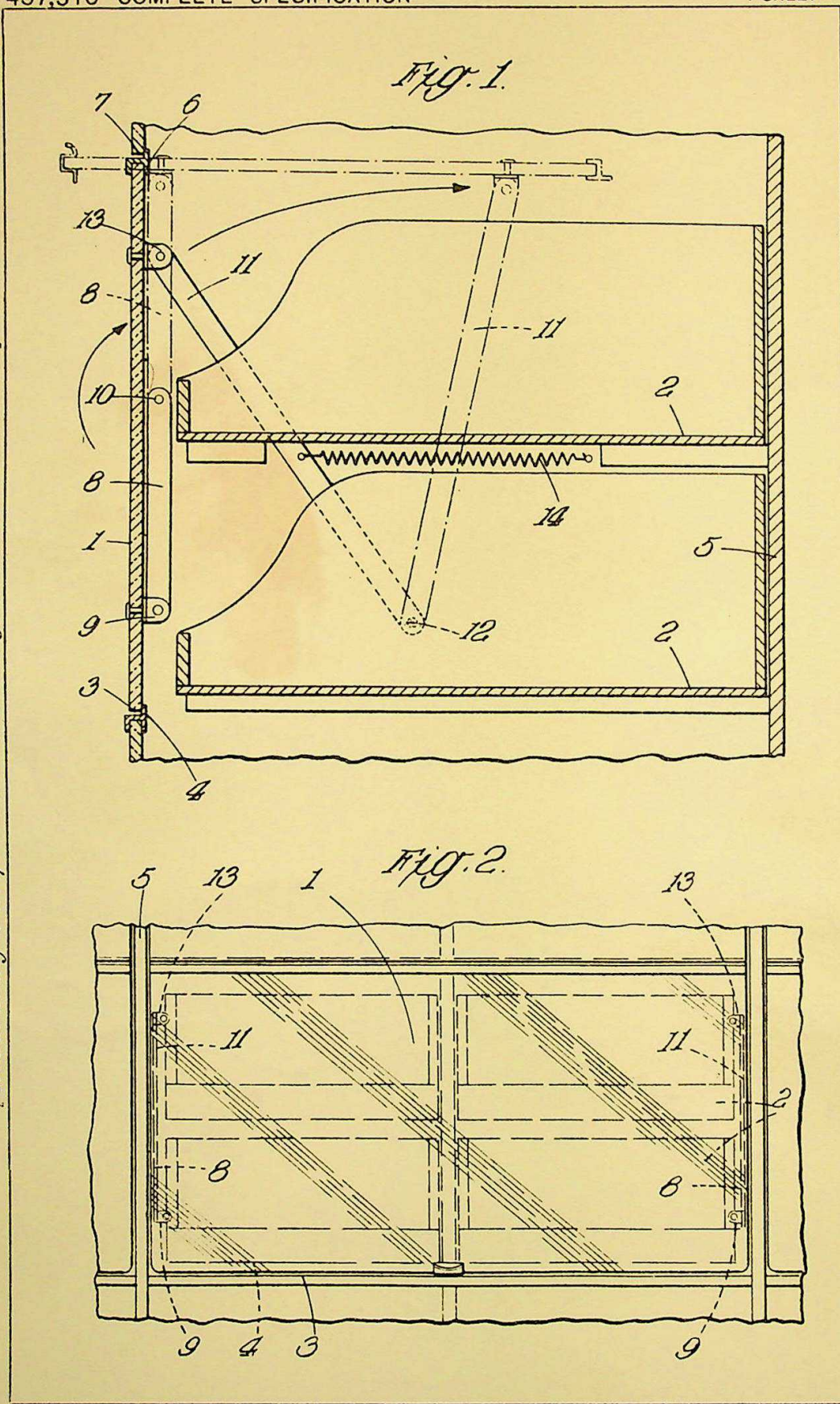
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457,316 COMPLETE SPECIFICATION

1 SHEET

[This Drawing is a reproduction of the Original on a reduced scale.]



Malby & Sons, Photo-Lith



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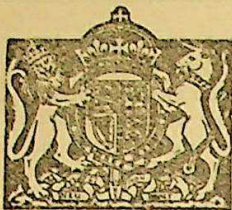
Div. 8

# PATENT SPECIFICATION

457,316

Application Date : June 12, 1936. No. 16428/36.

Complete Specification Accepted : Nov. 25, 1936.



## COMPLETE SPECIFICATION

### Improvements relating to Disappearing Doors for Tray Cabinets and the like

We, HORATIO NELSON BARNES, a British subject, and H. N. BARNES LIMITED, a British Company, both of 40 Peterborough Road, Fulham, London, S.W.6, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to disappearing doors for tray cabinets and the like, such as are usually used by drapers, the doors, which enclose the fronts of the shelves containing the stocks being adapted to be swung outwardly and to be slidably displaced within the cabinet.

In a cabinet having a front opening, there is provided, according to this invention, a door adapted to cover said opening and pivotally connected at one end of each side by means of two short links, which are pivoted to the interior of the cabinet case, to which interior the inner ends of two long links are pivoted, the outer ends of the long links being pivoted to the sides of the door intermediate the centre thereof and the end remote from that at which the ends of the short links are pivoted, the arrangement being such that the door, together with the links, can be displaced about the pivots of the links located on the cabinet case so that in its retracted position the short and long links will support the front and back portion of the door.

The two long links are preferably provided with tension springs arranged so that the springs assist in displacing or pulling the door into the cabinet from its "closed" position, and also assist to take the weight of the door when it is brought down into its closed position.

The door preferably consists of glass, suitably framed or entirely frameless, the ends of the links conveniently being pivoted to lugs secured to the frameless glass in alignment with the sides, or in the frame construction the said ends may be pivoted to the sides of the frame.

An embodiment of the invention is shown in the accompanying drawings, wherein:—

Fig. 1 is a sectional side elevation of a cabinet having sliding trays and showing the door covering two trays, and

Fig. 2 is a front elevation of Fig. 1. The embodiment of the invention is shown in the drawings as applied to a tray cabinet containing tiered and sliding trays as generally used by drapers and outfitters for accommodating and displaying their goods, the door of glass being adapted to cover the front of two trays 2, 2, the lower edge 3 of the door in its closed position abutting against a shoulder 4 preferably of or covered by rubber extending along the lower edge of the front opening of the cabinet case 5. A shoulder 6 also preferably of rubber or rubber-covered, is secured to and extends along the top edge of the door so as to abut against the interior surface of an upper margin 7 of the cabinet extending along and constituting the upper boundary of the front opening.

The length of each of the two short links, of which only one 8 is shown in Fig. 1, do not exceed half the vertical height of the door, the said links are pivoted at one end to inwardly extending lugs 9 secured to the door and located adjacent the lower end of the respective sides of the door. The other end of each link is pivoted to the interior surface of the sides of the cabinet case at a point 10 located at a distance from the upper end of the side equal to the length of the link. As shown in Fig. 1 the two short links are arranged to be parallel with the surface of the door when this is in its cover position.

The two long links, of which only one 11 is shown in Fig. 1 are located respectively at the sides of the cabinet case and the lower or inner ends of each link is pivoted to the inner surface of the side of the case at a point 12 adjacent the bottom of the shelf and approximately mid-way between the back and front of the case. The upper or outer ends of the long links are pivoted to lugs 13 secured to the door and in alignment with the sides thereof, and adjacent its upper end.

As hereinbefore stated, tension springs



- 14 may be provided on the long links to assist in the retraction of the door and also to assist in taking the weight of the door during its displacement to its closed position. These springs are secured at one end to the long links intermediate the ends thereof and are extended in tension in substantial parallel relation with the sides of the cabinet case to which the other ends of the springs are secured.
- As previously stated the arrangement is such that the door can be displaced from its cover position as shown in full lines in Fig. 1 to its retracted position (shown in broken lines), within the cabinet case or vice versa. In its retracted position, the door is above and parallel, or substantially parallel, with the tray or shelf and is supported in this position by the links, the position of which are shown in broken lines in Fig. 1, the short links supporting the front portion of the door and the long links supporting the rear portion thereof.
- Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim is:—
1. A cabinet having a front opening provided with a door adapted to cover said opening and pivotally connected

adjacent the front end of each side by means of two short links which are pivoted to the interior of the cabinet case, to which interior the inner ends of two long links are pivoted, the outer ends of the long links being pivoted to the sides of the door intermediate the centre thereof and the rear end, the arrangement being such that the door together with the links can be displaced about the pivots of the links located on the cabinet case, so that in its retracted position, substantially parallel with the tray bottom, the short and long links will support the front and back portion of the door.

2. A cabinet, according to claim 1, in which the two long links are associated with tension springs, the springs being arranged to assist in displacing or pulling the door into the cabinet from its closed position and also assist to take the weight of the door when it is brought down into its closed position.

3. A cabinet provided with a door operating substantially as described with reference to the accompanying drawings.

Dated this 12th day of June, 1936.  
REGINALD W. BARKER & CO.,  
Applicants' Agents,  
56, Ludgate Hill, London, E.C.4.